One Nation Innovation

Labyrinth Project
www.onenationinnovation.org

This is a Request for Proposal (RFP) to identify your company's ability to support the One Nation Innovation's Labyrinth Project task "XVIII Airborne Corps: H2F Data Problem Set"

XVIII Airborne Corps: H2F Data Problem Set

OVERVIEW

Holistic Health and Fitness (H2F) needs data to be cataloged and maintained at the XVIII Airborne Corps (ABC) level to establish governance and human performance improvement over time. Additionally, machine learning and data interaction at the Corps & lower echelons will enable leaders and providers to leverage Human Performance (HP) data to improve readiness & lethality. In partnership with AFC CIO, DDSD, SwF, and CDAO this effort will create and demonstrate integrated data backbone for human performance data & governance across the XVIII ABC. This includes services/systems establishment, data processing, and governance processes IOT allow for future ML Ops at Army echelons to leverage the data. The architecture of this complex problem requires integration with Army systems and commercial front end products to work effectively. Since the XVIII ABC supports a minimum of 90,000 personnel throughout its formation and works with large scale partner agencies, this problem set should be viewed to support at a minimum 120,000 personnel's worth of data collection and processing. It should be known currently that this demand is not fully scaled and is not receiving constant input of data. However, this is the end state goal of this problem set. As a result, each sprint should anticipate a scaling nature of the amount of support needed to properly handle the existing and new incoming data streams.

The requirements for the Request for Proposals to support the Data Problem Set at XVIII ABC are featured below:

GOALS

1. Problem set seeks to ensure that XVIII ABC data is properly warehoused, and datasets are properly structured so that data can be analyzed (AI/ML ops) at the XVIII ABC level and at a higher echelon.
2. Problem solvers will take both XVIII ABC localized datasets and structures and partner with Army Application Lab (AAL) and other partner agencies to ensure that the data is properly leveraged across the enterprise.
3. Develop processes and procedures and ability to push/pull information from front end services that exist for HP collection. This push/pull will occur on XVIII ABC localized front end services to include the H2F application and LET application. It will also require the push/pull of data from partner agencies such as Optimizing the Human Weapon System (OHWS) and Measuring and Advancing Solider Tactical Readiness and Effectiveness (MASTRE).
4. Support application and cloud development and maintenance IOT support ATO for applications and platforms. This is not an ATO/ISSO requirement, this is intended to provide the ATO/ISSO team the required support to accomplish their ATO requirements.
5. Provide services to identify and implement methods and tools for data collection, processing, exploration, model lifecycle, and security to transition identified government models related to XVIII ABC's H2F problems.

SPECIFICATIONS

1) Provide a proposed technical architecture for your solution to provide data ingestion, cleaning, curation, warehousing, and provisioning within the XVIII ABC cArmy-U environment.
   a. Identify how this environment would provide the ability to provision training data sets with governance limiting access to specific organizations or teams.
   b. Describe how you would handle the compute and store issues that may come with multiple instances of the same data across several end user devices.
   c. Describe how you will push/pull PHI/PII data from Government programs of record.
   d. Describe how you will ensure PHI/PII is protected.
   e. Detail how you would integrate analytical and visualization tools (e.g., PowerBI, Tableau, R Studio, Python, Matlab, Plotly, Seaborn, ggplot2, Docker, Kubernetes, Terraform, JavaScript, React, Express, MongoDB, and PostgreSQL) between several parent-child governance structures. The list above highlights what is currently utilized in the enterprise and it should be understood that other tools and solutions can be discussed within the proposals.

2) Please detail how you would agnostically integrate third-party software applications (data pulls and pushes) for H2F data collection AND dissemination.
   a. Strength and conditioning applications (e.g., CoachMePlus, Bridge Athletic, Train Heroic, etc.) utilized by Soldiers and maintained by H2F performance teams.
   b. End user, coach/instructor, command-level human performance data management system solutions (e.g., Smartabase, Kitman Labs)

c. Describe how you would handle the compute and store issues that may come with multiple instances of the same data across several end user devices.

d. Detail how you would integrate analytics and dashboard visualization tools between several parent-child governance structures.

e. Describe how you would adjust the specified team in order to pivot onto and conduct a technology transition within the cArmy infrastructure?

f. Describe how you will work with the government lead and ATO support SMEs for delivery of technical architecture proposed above to include achieving ATO with a cArmy-U environment.

g. Describe how you will collaborate with other non-government providers to support a transparent, team approach through development, tests/evaluations, refinement, and transition efforts?

h. Propose recommended team size and composition to develop and maintain the data warehouse.

i. Describe how you would employ tech, processes, and personnel for various XVIII ABC units to autonomously run algorithms to assess shoot, move, communicate dynamics in a live-fire scenario and outside of a lab environment.

j. Describe your organization's domain expertise (H2F, Human Performance, Lethality) that will benefit the XVIII ABC to understand and solve the units' H2F data and analytics problems.

3) This effort will aide in project development, accreditation, maintenance, and sustainment. The work will be performed preferably at Fort Bragg from Monday-Friday during core business hours (0800-1700). The XVIII ABC team understands that 100% work performance at Fort Bragg collocated with the Data Warfare Company (DWC) may not be viable for all contractors and as a result will also consider hybrid solutions and even fully remote. However, please understand that the preference will be towards on installation or hybrid solutions (i.e. 1-2 members at Bragg and the remainder remote or remote with travel and TDY periods).

4) Period of Performance and schedule: we ask each proposal to feature the following schedule structures:

a. 90-Day Sprint Model (show 4 total sprints) to demonstrate performance; first two sprints fully funded, last two sprints incrementally funded

b. 1 Year Period of Performance (PoP) with specified staffing plan and built-in options to add additional support through the PoP

c. Each proposal must have a detailed cost breakdown (labor, travel, G&A, equipment)

Estimated Work roles/responsibility descriptions:

1. Product Management Data Scientist/DevOps Engineer – Responsible for planning, designing, testing, and implementing a comprehensive XVIII ABC data repository. This role is responsible for working with the XVIII ABC and partner agencies to develop a coordinated process for push/pulling information across the formation and enterprise. This role will identify processes that can become automated. Will provide reports and products to the DWC to enable proper data compliance and management across the formation. This role can require engagements with key leaders and may require the presentation of data driven findings.

2. Operational Data Scientist – This role is responsible for building, improving, and maintaining a fully scalable and consistent data collection and storage program that enables the XVIII ABC utilize collected data to make informed decisions at the user, provider, and leadership levels. Responsible the following key tasks:
    a. Data anonymization for data sharing
    b. Data Ingestion
    c. Data Architecture
    d. Data Cataloging
    e. Data modeling to relevant ontologies/taxonomies
    f. Building data and algorithm pipelines and feedback mechanisms
    g. Automation of data collection
    h. Streamlining functions to include analysis and transformation
    i. Data Storage
    j. Data Security
    k. Data labeling

Certifications/Skills:

1. Minimum of 5 years of industry level data science experience
    a. If a junior data scientist is proposed, a justification of need must be provided and a plan for ensuring tangible deliverables are produced by this individual (i.e. senior data scientist will instruct and mentor).
2. Must hold at least 1 industry accepted data science certification (CAP, SDS, MCSE, etc.)
3. Additionally, should have the relevant training and/or certifications required for a Data Scientist
4. Troubleshooting and analytical skills
5. Strong communication and collaboration skills
6. Must have a base level education on the following: PowerBI, Tableau, R Studio, Python, Matlab, Plotly, Seaborn, ggplot2, Docker, Kubernetes, Terraform, JavaScript, React, Express, MongoDB, and PostgreSQL
    a. Emphasis of strong understanding is on:
        i. Docker
        ii. Kubernetes
        iii. Terraform
        iv. PowerBI
        v. Python
        vi. MongoDB

Logistics:

1. No Government Furnished Equipment (GFE) for this award. Contractor may propose specific equipment items needed in their proposal and associated costs.
2. If contract performance is to be conducted at Fort Bragg, contractor should expect an assigned workspace with a standard desk/cubicle and chair.
   a. Contractor should factor into their proposal and be prepared to provide their own commercial internet access via wifi Hotspot in order to perform the work for this problem set. While there is internet at the government facility, the current bandwidth is not sufficient for performing this work.
3. If performance will be 100% remote, then Contractor should factor travel to Fort Bragg in their proposal (this cost should be separated from other costs).

Response Requirements for this RFP:

1. State your detailed approach to meet the scope and requirements
2. State your staffing structure, labor categories and management approach for this effort
3. Costs associated with support for a Period of Performance of 12 months that describes the 90-day sprints from time of award.
4. Include previous experience where you have done this type of work before, customer and the outcome. If no previous experience it will be evaluated as neutral.
5. Submit your responses into 4 separate volumes:
(Volume 1: Detailed Technical Approach, Volume 2: Staffing and Management Approach, Volume 3: Cost, Volume 4: Prior experience/Company past performance).
6. Your total submission is limited to no more than **30 pages** total not including the cover page. This allows flexibility for each offeror to tailor their responses accordingly. Ensure that each volume is separated and labeled per the guidance above.
7. Submit your response to this **RFP NLT 9 January 2023** by 5pm EST.
8. All response materials submitted to **response@onenationinnovation.org**
9. Please provide a targeted on-boarding date and on-boarding requirements post award.
10. All Response Submissions **must** include the following Cover Page administrative data:

Business Name
Technical and Business Point of Contact Name
Title
Email
Phone
Business URL
Business Address:
Business Phone:
Unique Entity ID:
Cage Code:
Business Status: (i.e. NonProfit)

11. After submission deadline, ONI will go through a down selection with the government representatives that may lead to one-on-one meetings between One Nation Innovation and the down selected Offeror for potential follow-on information requirements.
12. Evaluation Criteria: This agreement will be firm fixed price. Innovative approaches will make your submission standout. Your submission will be evaluated on the following:
   - Your approach to meet the requirement (40% weight)
   - Staffing and Management (20% weight)
   - Cost for a 12-month period of performance (20% weight)
- Previous experience/understanding of your company's ability to successfully conduct the work (20% weight)

NOTE: ALL questions on this RFP must be submitted by 28 December 2022 by 5pm (eastern). Submit your consolidated questions to response@onenationinnovation.org .